

WHAT IS CLAIMED IS:

1. A manufacturing device for a synthetic resin hollow molded body, comprising:

a first die and a second die which mold a first split assembly member, a second split assembly member and a third split assembly member which are molded by a first injection and each of which has a contact portion that is jointed with a corresponding contact portion by a second injection;

an ejecting mechanism which moves at least one of the first split assembly member, the second split assembly member, and the third split assembly member in a die opening/closing direction such that a phase of the member is made different from phases of the other members in the die opening/closing direction while the first die and the second die are open;

a rotating mechanism which rotates at least one of the first split assembly member, the second split assembly member, and the third split assembly member around a shaft center in the die opening/closing direction while the first die and the second die are open; and

a sliding mechanism which slides at least one of the first split assembly member, the second split assembly member, and the third split assembly member in a direction perpendicular to the die opening/closing direction while the first die and the second die are open, wherein the first split assembly member, the second split assembly member, and the third split assembly member are made to face one another in the die opening/closing direction by the ejecting mechanism, the rotating mechanism, and the sliding mechanism.

2. The manufacturing device according to claim 1, wherein at least one of the first split assembly member, the second split assembly member, and the third split assembly member is rotated such that at least two of the first split assembly member, the second split assembly member, and the third split assembly member face one another in the die opening/closing direction.

3. The manufacturing device according to claim 1, wherein at least one of the first split assembly member, the second split assembly member, and the third split assembly member is slid such that at least two of the first split assembly member, the

second split assembly member, and the third split assembly member face one another in the die opening/closing direction.

4. The manufacturing device according to claim 1, wherein the first die
5 includes at least one passage for supplying molten resin.

5. The manufacturing device according to claim 4, wherein the passage is a first passage for supplying the molten resin to a cavity between the first die and the second die while the first die and the second die are closed.

10 6. The manufacturing device according to claim 4, wherein the passage is a second passage for supplying the molten resin to a hollow portion formed so as to be surrounded by contact portions of the first split assembly member, the second split assembly member, and the third split assembly member when each of the contact
15 portions is made to contact the corresponding contact portion while the first die and the second die are closed.

7. The manufacturing device according to claim 1, wherein the mechanisms are operated in order of the ejecting mechanism, the rotating mechanism,
20 and the sliding mechanism.

8. The manufacturing device according to claim 1, wherein the second die includes the ejecting mechanism, the rotating mechanism, and the sliding mechanism; while the first die and the second die are open, the second split assembly
25 member is moved in the die opening/closing direction by the ejecting mechanism such that the phases of the first split assembly member, the second split assembly member, and the third split assembly member are made different in the die opening/closing direction; the third split assembly member is rotated around the shaft center in the die opening/closing direction by the rotating mechanism; and the second split assembly
30 member, and the third split assembly member are slid in a direction perpendicular to the die opening/closing direction by the sliding mechanism, whereby the first split assembly member, the second split assembly member, and the third split assembly member face one another in the die opening/closing direction.

9. The manufacturing device according to claim 8, wherein the sliding mechanism includes a sliding member which is supported by the second die body so as to be slidable in the direction perpendicular to the die opening/closing direction, and a slide driving portion which slides the sliding member; the ejecting mechanism includes an ejecting member which is supported by the sliding member so as to be movable in the die opening/closing direction, and an ejection driving portion which moves the ejecting member; the rotating mechanism includes a rotating member which is supported by the sliding member so as to be rotatable around the shaft center in the die opening/closing direction, and a rotation driving portion which rotates the rotating member; the first die includes a female die portion for molding the first split assembly member, a female die portion for molding the second split assembly member, and a female die portion for molding the third split assembly member; the sliding member includes a male die portion for molding the first split assembly member; the ejecting member includes a male die portion for molding the second split assembly member; and the rotating member includes a male die portion for molding the third split assembly member.

10. The manufacturing device according to claim 1, wherein the second die includes the ejecting mechanism, the rotating mechanism, and the sliding mechanism; while the first die and the second die are closed, phases of the first split assembly member, second split assembly member, and the third split assembly member are made different in the direction perpendicular to the die opening/closing direction at the first injection time; the first die and the second die are opened so as to move second split assembly member, and the third split assembly member in the die opening/closing direction, and while the first die and the second die are open, the second split assembly member is moved in the die opening/closing direction by the ejecting mechanism such that the phases of the first split assembly member, the second split assembly member, and the third split assembly member are made different in the die opening/closing direction; the third split assembly member is rotated around the shaft center in the die opening/closing direction by the rotating mechanism such that second split assembly member, and the third split assembly member face each other in the die opening/closing direction; and the second split assembly member, and the third split assembly member are slid in the direction

perpendicular to the die opening/closing direction by the sliding mechanism, whereby the first split assembly member, the second split assembly member, and the third split assembly member face one another in the die opening/closing direction.

5 11. The manufacturing device according to claim 1, wherein the first die is fixed.

 12. A manufacturing method for a synthetic resin hollow molded body, comprising:

10 a first injection molding process in which a first split assembly member, a second split assembly member and a third split assembly member are molded by a first injection between a first die and a second die;

 a positioning process in which phases of the first split assembly member, the second split assembly member, and the third split assembly member are
15 made different in a die opening/closing direction while the first die and the second die are open, and then first split assembly member, the second split assembly member, and the third split assembly member are made to face one another in the die opening/closing direction; and

 a second injection molding process in which each of the contact
20 portions of the first split assembly member, the second split assembly member, and the third split assembly member is made to contact a corresponding contact portion and each of the contact portions is jointed with the corresponding contact portion by a second injection between the first die and the second die.

25 13. The manufacturing method according to claim 12, wherein in the positioning process, the second split assembly member is moved in the die opening/closing direction such that the phases of the first split assembly member, the second split assembly member, and the third split assembly member are made
30 different in the die opening/closing direction, the third split assembly member is rotated around the shaft center in the die opening/closing direction such that the second split assembly member, and the third split assembly member face each other in the die opening/closing direction, and the second split assembly member, and the third split assembly member are slid in a direction perpendicular to the die opening/closing direction, whereby the first split assembly member, the second split assembly

member, and the third split assembly member face one another in the die opening/closing direction.